

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE HONORABLE BOARD OF PATENT APPEALS AND  
INTERFERENCES

In re the Application of

David Szymanski.

Application No.: 10/780,323

Examiner: Clark F. Dexter

Filed: February 17, 2004

Docket No.: INDI 200002US01

Title: **WOOD CUTTING SAW CHAIN AND REPLACEABLE CUTTING MEMBERS**

**APPELLANT'S REPLY BRIEF**

Appeal from Group 3724

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**I. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL –  
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COMMUNICATION MAILED 10/28/2011 (C.F.R. § 41.37(C)(1)(VI))**

The Examiner's Answer asserts arguments to which Appellants respond below. In all other respects, the information required by 37 C.F.R. §41.37 is provided in the Appeal Brief filed February 10, 2011 by Appellants, and Appellants maintain the pertinent arguments set forth therein.

Applicant appreciates that the Examiner has withdrawn the rejection under 35 U.S.C. § 112, second paragraph for the recitation "at each end" as it is recited in the claims. Applicant also appreciates that the Examiner has withdrawn the prior art rejections based on Wright as the primary/base reference.

Additionally, Applicant has interpreted the Office Communication mailed October 28, 2011 to indicate that the rejections to claims 1, 16, 18, 19, 20, 23 and 24 under 35 U.S.C. § 112, second paragraph for the recitation "at each end" has been withdrawn. The rejections to claims 1-3, 5-10, 12, 15, 18-20, 23 and 24 under 35 U.S.C. § 103(a) due to Wright in view of Funakubo have been withdrawn. Further, a new ground of rejection has been added whereby claim 12 is now rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Raetz in view of Funakubo or in the alternative over Raetz in view of Funakubo and Wright and further in view of Hawk Precision Components Copper Infiltration process specification sheet.

**II. ARGUMENT**

**A. Claims 1, 15, 16, 18 and 19 are Not Indefinite**

The Office Action rejected claims 1, 15, 16, 18 and 19 under 35 U.S.C. § 112, second paragraph as allegedly being indefinite. Specifically, the Office Action alleged that the limitations "relative to the direction of intended chain travel" and "relative to a direction opposite of intended chain travel" and similar derivations in claims 15, 16, 18 and 19 render the claims vague and indefinite since the structure of the link is being positively defined in terms of the chain and an intended use thereof, which is not set forth as part of the claimed invention. Applicants respectfully traverse these rejections for the following reasons.

MPEP § 2173.02 states, in part, that "[t]he essential inquiry pertaining to the indefinite requirement is whether the claims set out and circumscribe a particular subject matter with a

reasonable degree of clarity and particularity.” Definiteness of claims is not to be analyzed in a vacuum, but rather in light of:

- (A) The content of the particular application disclosure;
- (B) The teachings of the prior art; and
- (C) The claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made.

(*Id.*). “The test for definiteness under the second paragraph of 35 U.S.C. § 112 is whether ‘those skilled in the art would understand what is claimed when the claim is read in light of the specification.’ *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576, 1 USPQ2d 1081, 1088 (Fed. Cir. 1986)” (*Id.*).

In the present case, the Office Action has not asserted, let alone established, why the claimed features are believed to be indefinite from the perspective of one of ordinary skill in the art. As such, the Office Action failed to make a *prima facie* rejection of the claims under the second paragraph of 35 U.S.C. § 112. Applicants respectfully submit that the claims are indeed definite at least because they are directed to “[a] quick change cutting link for a **saw chain for cutting wood**” (emphasis added) that includes “a base member, having a lead end and a rear end, adapted to be pivotally connected to an associated connecting link at each end **forming said saw chain**.” (emphasis added). The saw chain is clearly set forth as part of the claimed invention and it is entirely proper to define the link in terms of the chain. The Examiner’s indefinite analysis fails to take into account the content of the application, the teachings of the prior art and claim interpretation that would be given by one possessing the ordinary level of skill in the art.

Additionally, Appellant asserts that one skilled in the art commonly understands that a saw chain travels in one direction around a guide bar, and is configured such that the chain must travel in this direction in order to properly cut wood. This feature is described in the specification at least in paragraph [0028]. Therefore, the recitation of a lead end and rear end orient the cutting link members and the chain relative to intended chain travel. Clearly, the leading end is the end of the base member that leads the chain around the guide bar (ie. the direction of intended travel). The Examiner argues that the recitation of the saw chain provides no clear implication of structure; however, Appellant submits that connecting the base member to the connecting link

and forming a saw chain **unquestionably adds structure** to the claim and to the base member in particular. That the Examiner holds this concept to be vague is baseless.

With specific reference to claim 16, the Examiner recites that the recitation "a chain" is vague as to whether it refers to that previously set forth in claim 15. In Appellant's After-Final Response, it was proposed to amend claim 16 to recite "the chain" rather than "a chain" clarifying what claim 16 refers to. Similarly, the Examiner asserts that the limitation "an associated cutting member" in claim 18 is vague as to whether it refers to that previously set forth or to another such cutting member. Also in Appellant's After-Final Response, it was proposed to amend claim 18 to recite "the associated cutting member" to clarify to which cutting member claim 18 refers. Although entry of the Amendment would have removed an issue on appeal and would have imparted no burden on the Examiner, by way of the Advisory Action, the Examiner refused to enter the amendments. Appellant requests that this rejection be held in abeyance pending outcome of the appeal.

With further reference to claim 18, the Examiner recites that the recitation "comprising no more than 0.5° to the mating taper of said associated cutting member" is vague and indefinite, since the base member is being positively defined in terms of the cutting member which is not part of the claimed invention. Appellant respectfully submits that claim 18 describes the associated cutting member in terms of the claimed base member. For instance, the upper taper of the base member is said to be adapted to mate with a top taper of the associated cutting member. This recitation orients the associated cutting member in terms of the base member. Accordingly, the tolerance is strictly a feature of the base member taper and is not being defined in terms of the cutting member. However, this recitation helps to orient the cutting member in terms of the base member, which is positively defined in the claim. Each taper's ability to achieve a close tolerance with the cutting member is a property of the base member and is being defined as such. The reference to the cutting member simply puts this feature into context.

Accordingly, it is respectfully submitted that the rejection is overcome and respectfully requested that the rejection be withdrawn.

**B. The Rejection of Claims 1-3, 6-9, 12-16, 18-20, 23 and 24 Over Raetz in View of Funakubo or in the Alternative Over Raetz in view of Funakubo and Wright is Erroneous and Must be Reversed**

Claims 1-3, 6-9, 13-16, 18-20, 23 and 24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Raetz in view of Funakubo, or in the alternative over Raetz in view of Funakubo and Wright. Appellants respectfully traverse these rejections for at least the following reasons.

Raetz and Funakubo and optionally Wright do not, individually or in combination, teach or suggest the present limitations as recited in the subject claims. Appellant submits that Raetz discloses a cutting tooth link that has a stud 7 protruding in the cutting direction that is configured to accept a cutting sleeve 9. While acknowledging that Raetz discloses that the underside 18 of the stud 7 and the upper edge 19 of the cutting body 5 taper toward each other in a direction counter to the cutting direction at an angle, Appellant submits that Raetz fails to identify any angle ranges that would suggest the presence of close tolerances, such as  $1^\circ$  or  $0.5^\circ$ , effective to cause a self-locking engagement, as presently claimed.

Additionally, Appellant asserts that although Raetz discloses the use of tapers, Raetz teaches differently placed tapers than the tapers presently claimed, and therefore a different configuration. The different configuration of Raetz functions in a different way than the claimed structure.

The present claims generally recite a base member having a seat surface having a first taper 26 and a lower surface having a second taper (A-See Fig. 4 Below). Further, a cutting member is disclosed as having an upper surface with a third taper 24 and an under surface having a fourth taper (B).

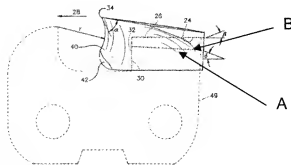
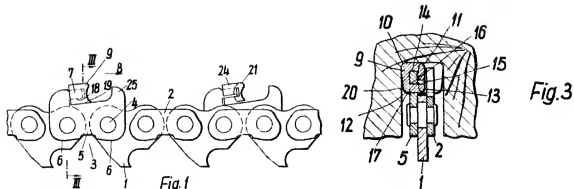


Fig.4

In contrast, Raetz discloses that edges 18 and 19 are tapered, and the tongue 17 may be conical. However, Raetz fails to teach or even suggest that the portion of the sleeve 9 associated with the upper edge of the stud 7 comprises any such taper. Additionally, a taper not distinguishable from the figures. (See Figs. 1 and 3 Below) Accordingly, Raetz lacks the upper tapering that is provided by the presently claimed first taper of the seat surface and additionally lacks the requirement that **each pair of tapers** includes a close tolerance effective to cause self-locking.

At most, Raetz provides a single pair of tapers 18 and 19; however this pair of tapers does not even comprise two edges in contact with one another, but rather two edges of the link body on opposite sides of the tongue 17. Raetz does not teach the precise tapering of each pair as disclosed in the present claims that allows for the close tolerance and self-locking engagement. As such, Applicant maintains that the subject claims patentably distinguish over Raetz.



Further, Fig. 3 illustrates the structural and functional difference than the claimed cutting link. More particularly, longitudinal slot 15 is provided to form a freely protruding tongue. This tongue 17 is located between edge 18 which faces the link body 5 and edge 19 which faces edge 18 while the tongue 17 is clamped in between. See col. 3, lines 5-13. One skilled in the art would understand that this longitudinal slot 15 is specifically positioned in the same plane as inner surface 16 to allow for deformation of the cutting sleeve 9 as it is positioned along the stud 7. The longitudinal slot 15 is required to clamp the tongue 17 between the said two edges 18 and 19.

Contrarily, the claimed cutting link functions to minimize deformation of the cutting link by relying on the self-locking engagement of said first taper and said third taper and of said second taper and said fourth taper. Further, the claimed structure does not include a stud 7 that

protrudes from the base 5 creating the necessary space to allow for the clamping of the tongue 17. Therefore, the claimed cutting link includes a different structure and a different function than the cutting link disclosed by Raetz.

Although it is acknowledged that Raetz lacks the specific material designations, the Examiner argues that use of such material on cutting teeth is old and well known in the art, as illustrated by Funakubo. Applicant submits, however, that neither Funakubo nor Wright make up for the aforementioned deficiencies set forth above. Accordingly, Raetz in view of Funakubo, and/or Raetz in view of Funakubo and Wright, nonetheless fail to teach or suggest the subject invention as presently claimed. Thus, reversal of the rejection is respectfully requested.

In the "Response to Argument C" section of the Examiner's Answer, the Office Action alleges that the taper between edges 18 and 19 plays no part in the present prior art rejection. The Examiner cites to column 3, lines 36-37 which describes that the stud 7 may taper toward its free end in a conical manner. Additionally the Examiner cites to column 2, lines 23-25 which indicates that the cutting body may be secured on the link body in a **simple** manner against rotation by providing the stud with a rectangular or square cross section. (emphasis added – the examiner stated that this term was "similar" which is not correct). However, these sections of Raetz cannot be construed to teach the claimed embodiments.

The correct interpretation of the descriptions chosen by the Examiner, taken together, actually teaches away from the self-locking engagement of said first taper with said third taper and said second taper with said fourth taper as claimed. More particularly, the term conical means: resembling a cone especially in shape.<sup>1</sup> A cone is generally defined as a solid bounded by a circular or other closed plane base and the surface formed by line segments joining every point of the boundary of the base to a common vertex.<sup>2</sup>

A cone shaped taper would not properly have a close tolerance with a cutting body having a rectangular or square cross section. Taken these described embodiments together, the cone shaped stud would not have a tapered and/or self-locking engagement within a rectangle or square cross sectional cutting body due to the incongruent shape of the abutting sides. Therefore,

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<sup>1</sup> <http://www.merriam-webster.com/dictionary/conical>.

<sup>2</sup> <http://www.merriam-webster.com/dictionary/cone>.

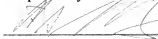


the analysis adopted by the Examiner's Answer compares embodiments of Raetz that actually teach away from the features recited by the claims. Raetz cannot possibly be construed to teach the tapered/self-locking engagement portion as claimed.

**CONCLUSION**

For all of the reasons discussed above, it is respectfully submitted that the rejections are in error and that claims 1-3, 5-10, 12-16, 18-20, 23 and 24 are in condition for allowance. For all of the above reasons, Applicant/Appellant respectfully requests this Honorable Board to reverse the rejections of claims 1-3, 5-10, 12-16, 18-20, 23 and 24.

Respectfully submitted,

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